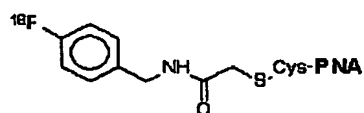


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Figure 1

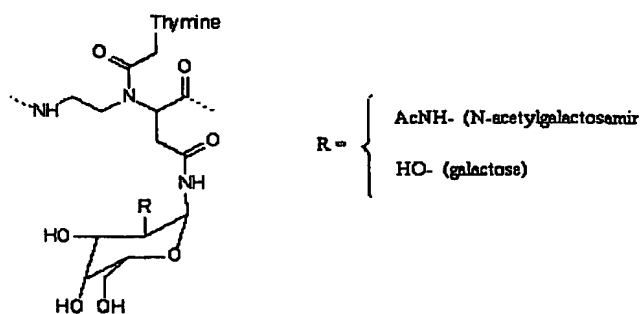
Radiolabelled PNA



Sequence of Modified PNA

PNA = Cys-CTCATACTCT-NH<sub>2</sub>

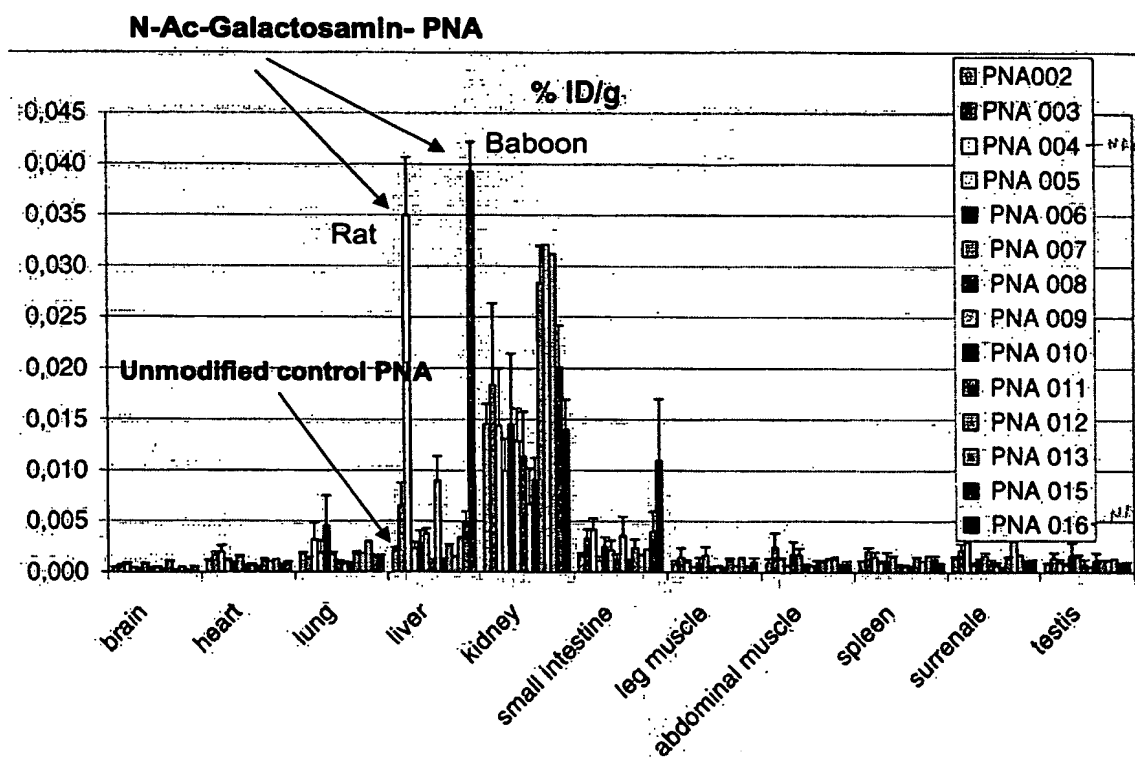
Glycosylated thymine monomers



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Figure 2

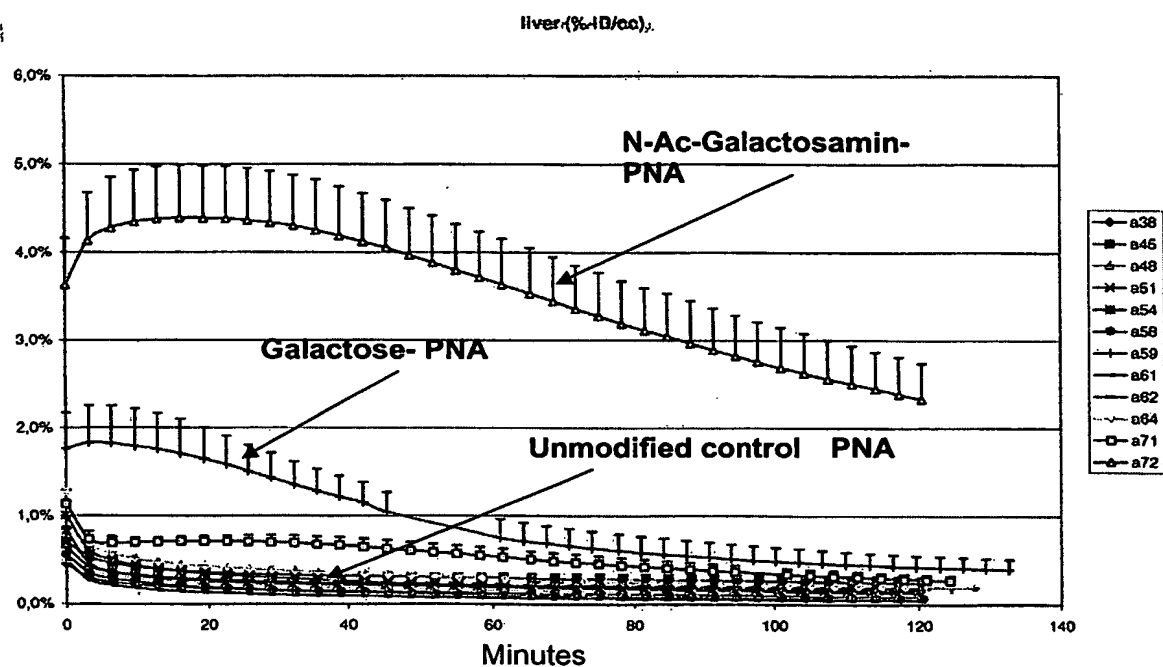
Tissue Distribution of Backbone Modified  
PNA oligomers by PET Scanning



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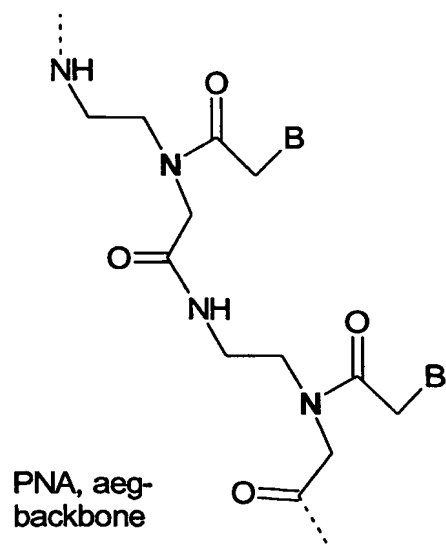
Figure 3

Liver Pharmacokinetics of Backbone  
Modified PNA oligomers by PET Scanning



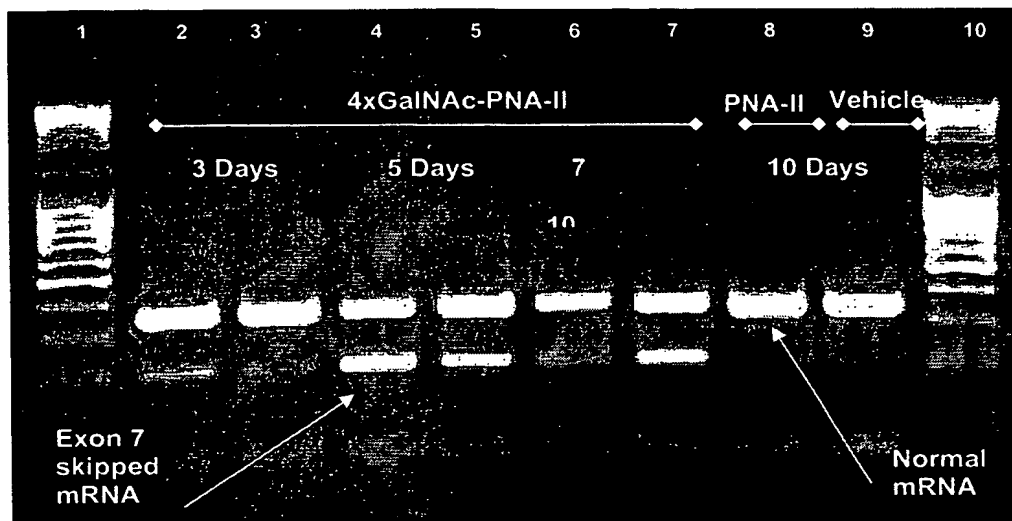
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Figure 4



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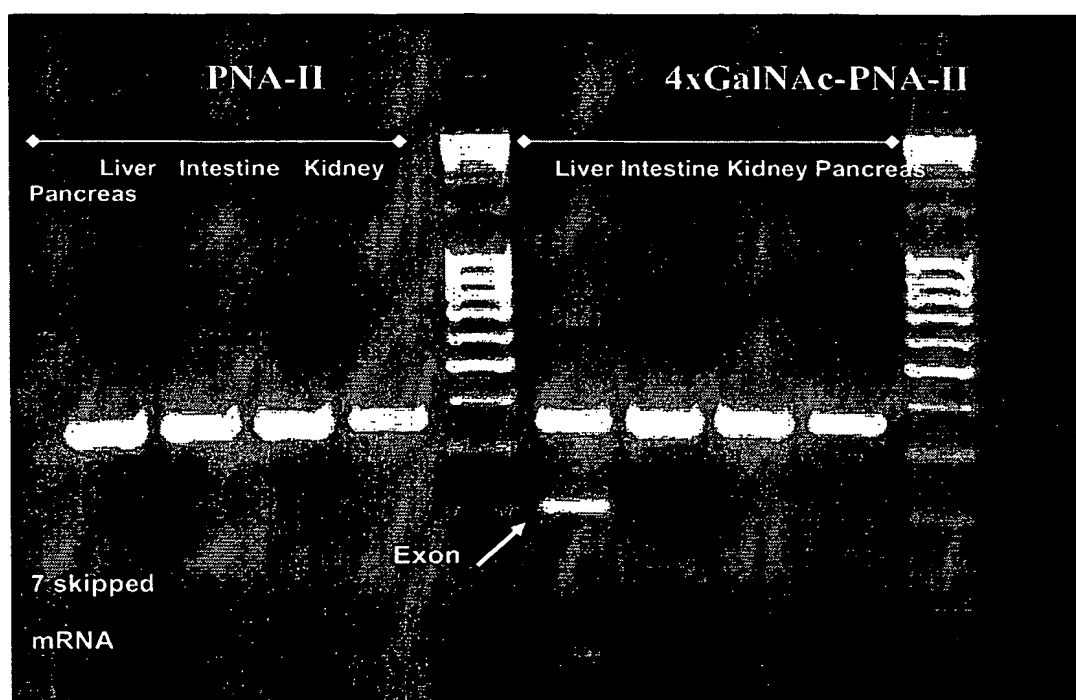
Figure 5



Kinetics of antisense effects of PNA in liver

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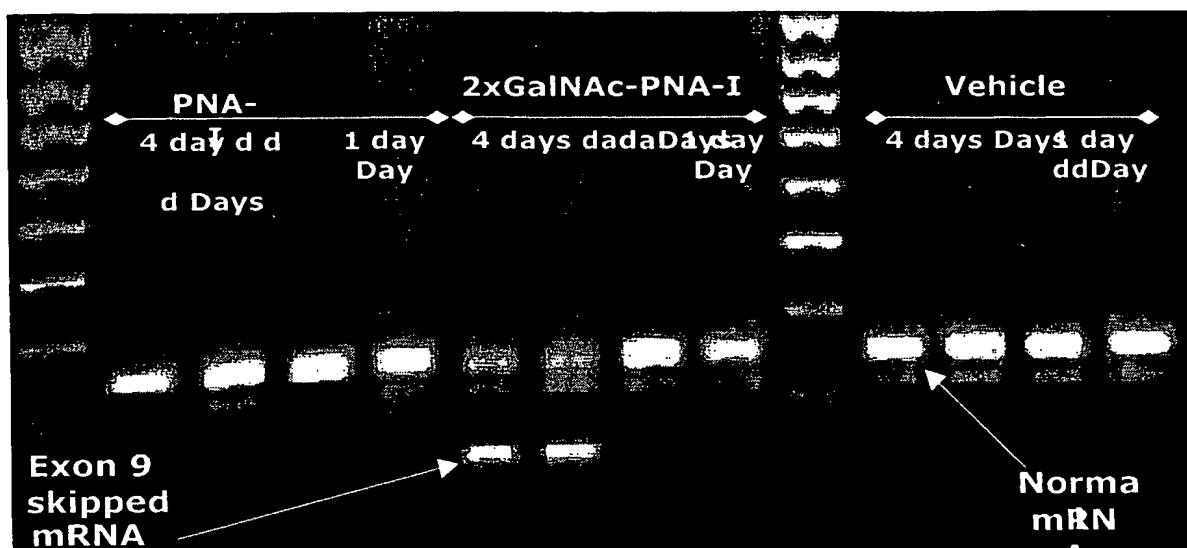
Figure 6



**Antisense activity of GalNAc conjugated PNA is restricted to the liver.**

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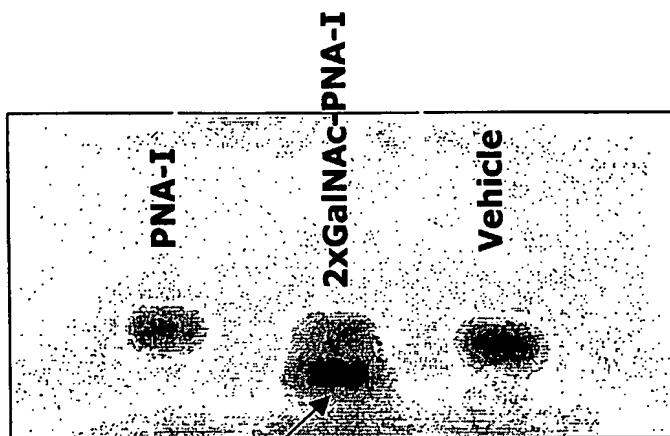
Figure 7



4 day dose regime improves the antisense effect.

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Figure 8

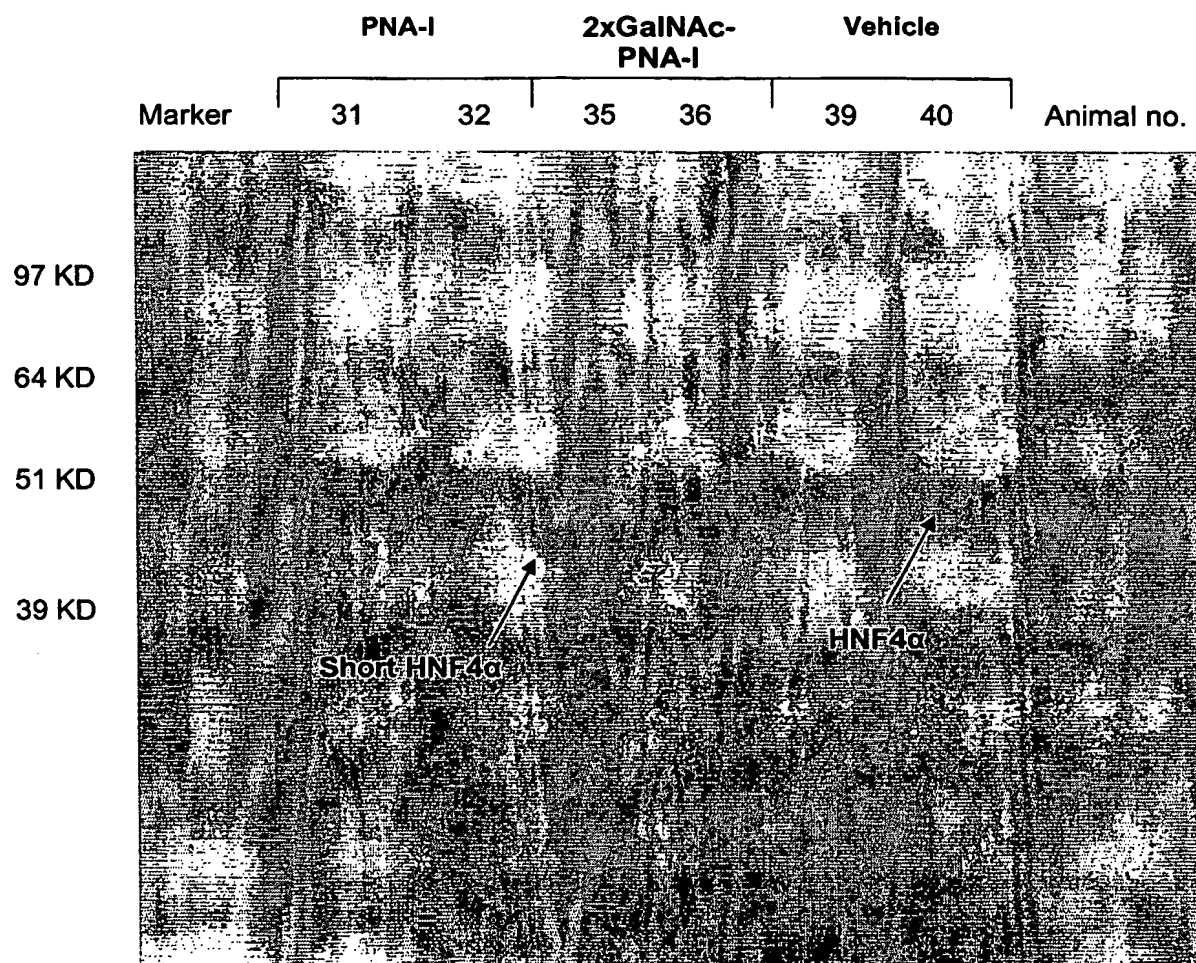


75% of Hnf4 pre-mRNA is  
mis-spliced



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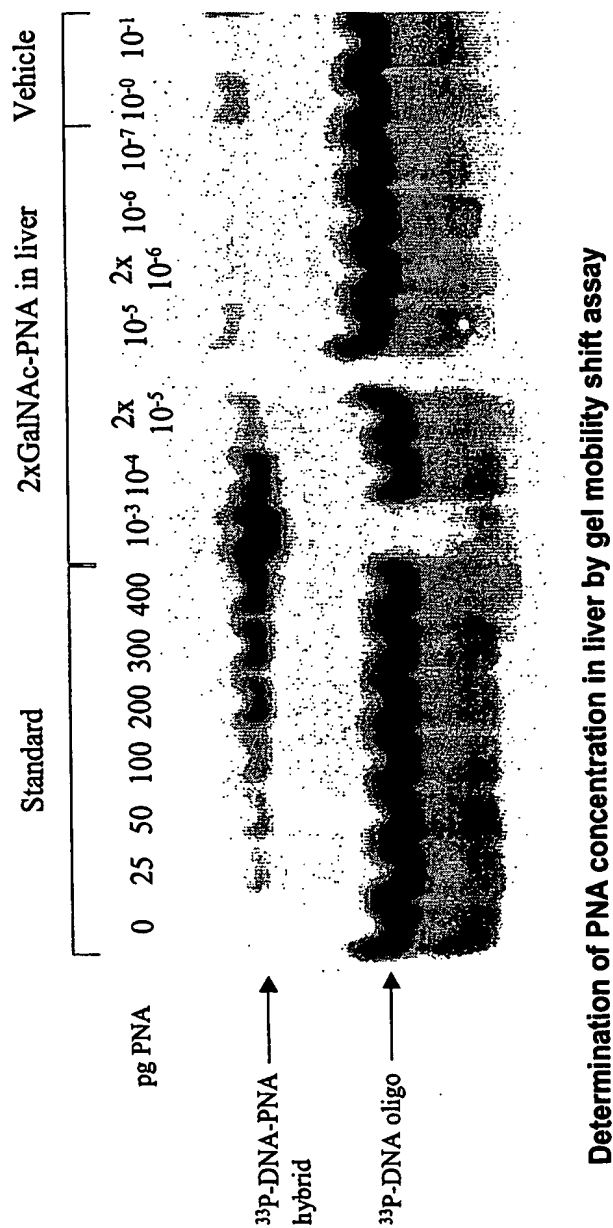
Figure 9



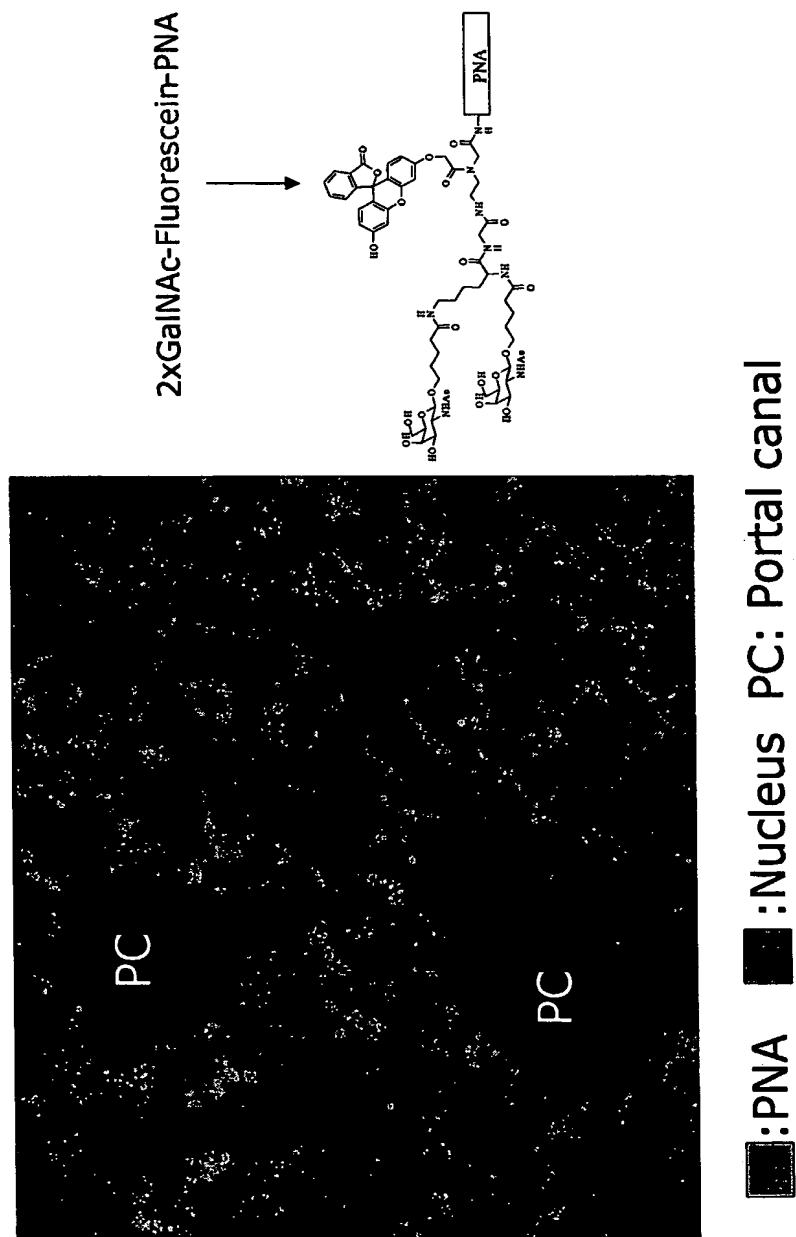
PNA provoked exon 9 skipping gives rise to truncated HNF4 $\alpha$  protein in liver.

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Figure 10



**Figure 11**



### Intracellular distribution of 2xGalNAc-fluorescein-PNA-II in hepatocytes